

A NEW GENUS OF BRACHYCISTIDINE WASPS

(Hymenoptera: Tiphidae)

MARIUS S. WASBAUER

University of California, Berkeley

In the course of preliminary investigations on the North American Brachycistidinae, the author has had to depend heavily on various collections of Mexican material for purposes of establishing generic relationships within the subfamily which is primarily Austral in distribution.

Early in 1955, a series of very large, robust specimens from Lower California came to my attention. Because of their unique combination of characteristics, they were set aside as representing a possible new genus. Later, a group of species occurring in the United States and referable to *Brachycistis*, as currently understood, was found to share many of the same morphological traits. Comparison of these species with other known brachycistidines, clearly indicates the necessity for their inclusion in a separate genus.

***Acanthetropis* Wasbauer, new genus**

Male.—Head rounded, broader than long; ocelli enlarged; compound eyes slightly convergent below, inner margins broadly emarginate; antennal socket with broad carina or thickening beneath; clypeus transverse, central portion slightly convex, with a narrow, apically projecting ledge; mandibles tridentate, a weakly developed carina extending from mandibular base to a point just proximad of innermost tooth, the carina obsolescent near its middle, strongly produced distally, forming a ridge or low dentiform process which is minutely striate on upper surface; maxillary and labial palpi well developed and conspicuous. *Thorax* robust, moderately long; pronotum narrow, transverse, nearly vertical, humeral angles rounded, not prominent; mesonotum with parapsidal furrows long, strongly impressed; mesepisternum carinately produced or with a low, rounded protuberance anterodorsally, not evenly convex. Propodeum with a dorsal median longitudinal sulcus, area laterad of sulcus raised, sloping off more or less abruptly posteriorly, dorsal, lateral and posterior faces separated by a strong carina which margins entire propodeum dorsally. Coxae simple, not carinate. Wings long, venation well developed; forewing with three submarginal and three discoidal cells, third submarginal cell two-thirds or more the length of the second, first transverse cubital vein arising beyond basal third of first submarginal cell; marginal cell elongate, the costa extending distad of stigma for a distance greater than half the length of stigma. Hind wing with radial and cubital veins well developed, cubitus arcuate, forming an angle with transverse cubital of less than 135 degrees, jugal lobe much shorter than submedian cell. First metasomal segment considerably narrower than second in dorsal aspect, the sternum with median sulcus expanded posteriorly into

a broad concavity; second metasomal sternum with a strong, basal, median, longitudinal carina. Digitus of genitalia sagittate at apex, without a long, lanceolate process extending apically; valsellar plate with a number of long, stout spines on mesal surface.

Female.—Unknown.

Type of genus: *Acanthetropis lamellatus* Wasbauer, new species.

The genus *Acanthetropis* is separable from all other known brachycistidine genera by the very long marginal cell of the forewing, excavated first metasomal sternum and longitudinally carinate second sternum. Its closest affinities are probably with the genus *Colocistis* Krombein with which it shares the transverse carina of the propodeum, anterodorsal protuberance of the mesepisternum, ornamentation of the second metasomal sternum, short digitus and large size.

Acanthetropis lamellatus Wasbauer, new species

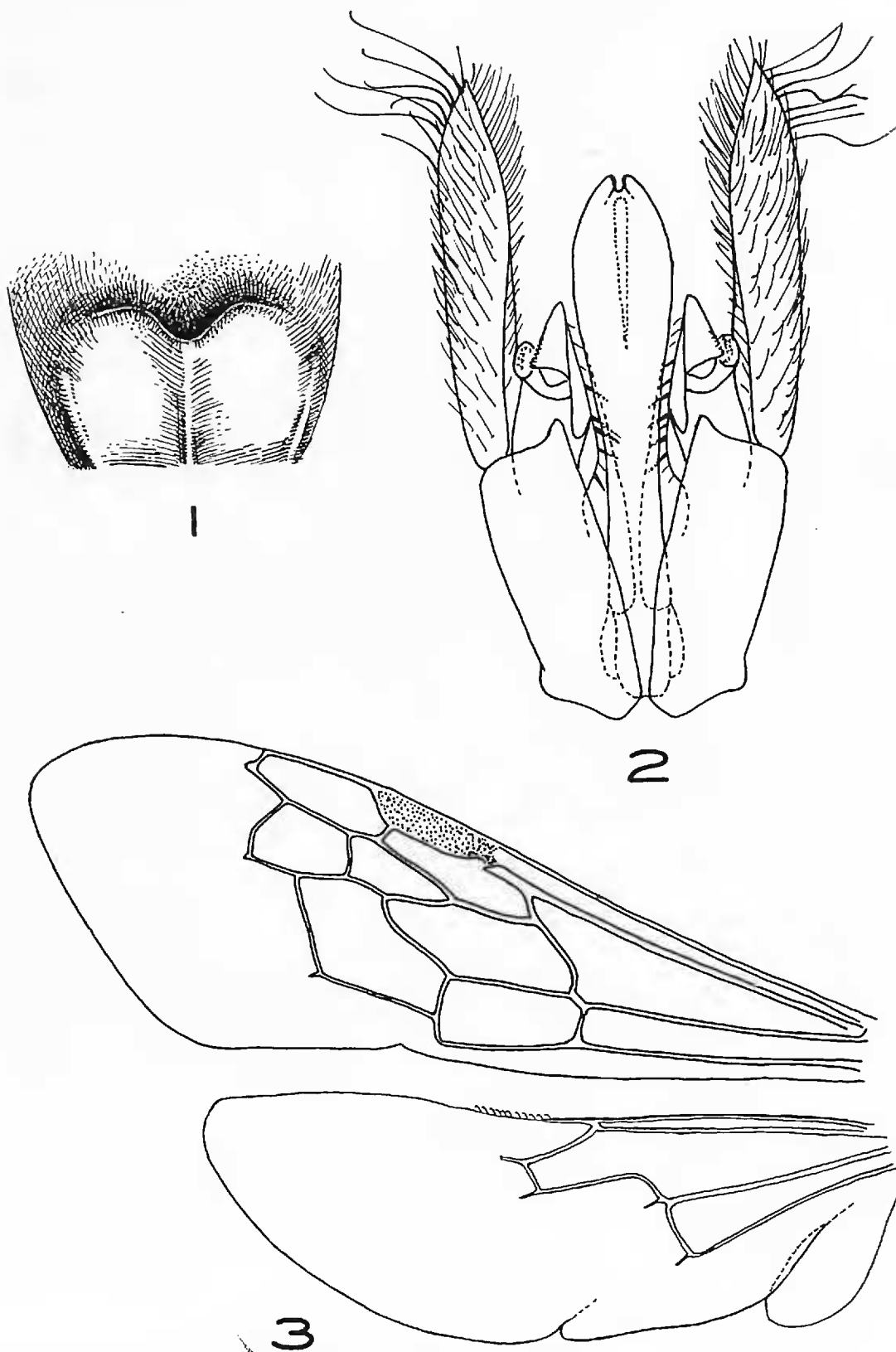
Male.—Dark mahogany brown, posterior metasomal segments slightly darker, antennae and legs amber yellow, tips of mandibles piceous. Vestiture shining white or faintly yellowish. *Head* very broad, length (measured from a line drawn across tops of lateral ocelli to apex of clypeus) .68 the width. Face shining with a few small scattered punctures, stronger between lateral ocelli and on occiput. Antennae moderately long, scape with a few long, erect hairs ventrally, flagellum sparsely clothed with minute appressed whitish pubescence, length of first flagellar segment 3.1 its greatest width. Lower rim of antennal socket not sharp or carinate below. Basal half of clypeus shining, impunctate, apical half with a number of irregularly spaced, broad, shallow punctures and long apically directed hairs. Gular carina not strongly elevated anteriorly, not visible below mandibular condyle in lateral aspect. Mandibles with a number of long, stout, amber-colored hairs on outer surface. *Thorax* strongly punctured, sparsely clothed with medium to long, erect or suberect hairs; anterior face of pronotum shining medially, nearly impunctate, lateral faces strongly punctate. Mesonotum with punctures smaller, more closely set anteriorly; mesepisternum with a strongly raised, ridge-like elevation below anterodorsal protuberance; propodeum with the dorsal sulcus strongly impressed, shining, raised area laterad of sulcus finely reticulate, impunctate except for small lateral area, posterior declivity sharp, carinate, area between declivity and posterior transverse carina smooth, shining; posterior face separated from lateral face by lateral diagonal carina meeting posterior carina dorsally, obsolete before posterior rim. Wings as illustrated (fig. 3). First metasomal segment short, stout, second metasomal sternum with basal carina broad, terminating at a raised, transverse lamella (fig. 1). Genitalia (fig. 2) with aedeagus gradually expanded before apex.

Female.—Unknown.

Length 14 (11–14) mm.

Holotype male and eleven paratypes, LA PAZ, LOWER CALI-

FORNIA, October 7, 1941 (Ross and Bohart); seven paratypes, fifteen miles north San Ignacio, Lower California, June 24 to 27, 1938 (Michelbacher and Ross); six paratypes, fourteen miles



EXPLANATION OF FIGURES

Acanthetropis lamellatus Wasbauer, new species. Fig. 1, basal portion of second metasomal sternum. Fig. 2, male genitalia, dorsal aspect. Fig. 3, wings (drawn from paratype).

south El Arco Mine, Lower California, June 23, 1938 (Michelbacher and Ross). The holotype and eleven paratypes have been deposited in the collection of the California Academy of Sciences, six paratypes with the California Insect Survey and seven paratypes with the U.S. National Museum.

In addition to the species described above, the following should be placed in the genus *Acanthetropis*: *Brachycistis idiotes* Cockerell, *B. noctivaga* Bradley, *B. normalis* Bradley and *B. aequalis* Fox (new combinations).

NESTING HABIT AND PREY RECORD OF HARPACTOSTIGMA (ARCESILAS) LAMINIFERUM (FOX)

(Hymenoptera: Sphecidae)

On July 2, 1957, while collecting along a highway cut above the Salmon River approximately three miles southeast of Whitebird, Idaho County, Idaho, the writer observed a single female of *Harpactostigma (Arcesilas) laminiferum* (Fox) (det. K. V. Krombein) in flight transporting an unidentified prey. The wasp alighted on the vertical face of a clay bank and entered a small crack. This crack was carefully enlarged and near the bottom a tunnel opening approximately one-quarter inch in diameter was found. While the tunnel was being exposed the wasp appeared and was captured. Further excavation revealed the tunnel to be approximately seven inches long, extending downward for most of its length then curving to the right and terminating in a cell about twice the tunnel diameter.

Within the cell were five nymphal and one adult *Scolops*. Unfortunately, the adult Fulgorid was not intact, and it and the nymphs could be recognized only to genus. However, from comparisons with identified material known or likely to occur in Idaho the specimens appeared to be *Scolops hesperius* Uhler, according to Richard C. Froeschner.

Since the adult *Scolops* was found in a damaged condition lacking head, prothorax, and some appendages even in the absence of larvae of *H. laminiferum* the use of adult *Scolops* as prey by this wasp is questionable. However, the presence in the nest of five *Scolops* nymphs, apparently paralyzed but otherwise in good condition, serves as a valid prey record.

The above note is significant since, to the writer's knowledge, this represents the first record of prey preference by a member of this genus.—ARTHUR R. GITTINS, *University of Idaho, Moscow*.